UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

IN RE: TEPEZZA MARKETING, SALES PRACTICES, AND PRODUCTS LIABILITY LITIGATION	:	**Case No. 1:23-CV-03568**
	:	**MDL No. 3079**
This document relates to:	:	
	:	**Case No. 1:23-CV-14056**
ANTHONY ARMENTI,	:	
	:	**Judge Thomas Durkin**
Plaintiff,	:	
	:	**Magistrate Judge M. David Weisman**
vs.	:	
HORIZON THERAPEUTICS USA, INC.,	:	
Defendant.	:	

FIRST AMENDED COMPLAINT AND JURY DEMAND

Plaintiff, Anthony Armenti, by and through counsel and for his First Amended Complaint and Jury Demand against Defendant Horizon Therapeutics USA, Inc., alleges as follows:

THE PARTIES

1. Plaintiff Anthony Armenti is a resident and citizen of Narrowsburg, New York, in Sullivan County.

2. Plaintiff brings this action for permanent hearing injuries and hearing loss he sustained as a direct and proximate result of his use of the prescription drug teprotumumab (brand name: Tepezza).

3. Plaintiff alleges damages in excess of $75,000, exclusive of interest and costs.

4. Defendant Horizon Therapeutics USA, Inc., f/k/a Horizon Pharma USA, Inc., is a corporation organized under the laws of Delaware with its principal place of business at 1 Horizon

Way, Deerfield, Illinois 60015. Defendant Horizon Therapeutics USA, Inc., (hereinafter Horizon or Defendant) is a citizen and resident of Delaware and Illinois.

5. Until October 6, 2023, Horizon Therapeutics USA, Inc. was a wholly owned subsidiary of Horizon Therapeutics PLC.

6. Horizon Therapeutics PLC is a global biotechnology public limited company formed under the laws of Ireland with its principal place of business in Dublin, Ireland.

7. Horizon Therapeutics PLC has held the approved United States Biologic License Application (BLA 761143) for Tepezza from approximately January 2020 to the present.

8. On October 6, 2023, Amgen Inc., a corporation organized under the laws of Delaware with its principal place of business at One Amgen Center Drive, Thousand Oaks, CA 91320, through its wholly owned subsidiary, Pillartree Limited, acquired Horizon Therapeutics PLC.

9. Upon information and belief, Defendant Horizon transacts and conducts business in the state of Illinois and derives substantial revenue from interstate commerce specifically from the sale of Tepezza.

10. Defendant Horizon expected or should have expected that its acts surrounding Tepezza would have consequences within the United States and in the state of Illinois.

11. At all times relevant hereto, Defendant was engaged in the business of developing, designing, testing, manufacturing, labeling, packaging, promoting, advertising, marketing, distributing, and selling Tepezza.

JURISDICTION AND VENUE

12. This Court has jurisdiction over this matter pursuant to 28 USC § 1332, as complete diversity exists between Plaintiff and Defendant and the amount in controversy exceeds $75,000, exclusive of interest and costs.

13. This Court has personal jurisdiction over Defendant Horizon as it transacts business within this State and is a corporation organized under the laws of this State.

14. Venue in this district is appropriate under 28 USC §1391 as Defendant is a resident of this State and district.

NATURE OF THE CASE

15. Plaintiff brings this action for damages resulting from injuries caused by Defendant's wrongful conduct in connection with the development, design, testing, labeling, packaging, promoting, advertising, marketing, distribution, and selling of its prescription drug Tepezza.

16. Tepezza is a prescription biologic drug that treats Thyroid Eye Disease (TED).

17. Tepezza is an infusion treatment given by physicians intravenously, usually administered once every three weeks for a total of 8 treatments.

18. Plaintiff was administered Tepezza via infusion from approximately late July 2021 through December 2021, undergoing a total of eight infusions.

19. At all relevant times, Defendant knew or should have that Tepezza, when used as prescribed and intended, causes severe hearing impairments and that such injuries can continue even after discontinuation of Tepezza.

20. Scientific studies, numerous patient reports, including significant newly acquired reports following Defendant's launch of Tepezza, and Defendant's post-marketing studies establish that Tepezza causes severe and potentially permanent hearing impairments.

21. Nevertheless, Defendant failed to warn, instruct, advise, educate, or otherwise inform Tepezza users and/or Tepezza prescribers about the increased risk of severe hearing impairments, including prolonged or permanent hearing loss and/or tinnitus, or the need for medical and/or audiologic monitoring before, during, and after Tepezza use.

22. At all relevant times related to Plaintiff's injuries, the label for Tepezza contained no warning that Tepezza may cause severe hearing impairments, including hearing loss, which may be permanent.

23. At all relevant times related to Plaintiff's injuries, the label for Tepezza contained no warning or instruction that patients should undergo audiologic testing before, during, and after Tepezza use.

24. In fact, it wasn't until July 17, 2023, that Defendant changed the label to warn of severe hearing impairments, including hearing loss which may be permanent, and to assess patients' hearing before, during, and after treatment.

25. As a direct and proximate result of Defendant's actions and its defective drug Tepezza, Plaintiff has suffered significant harm, physical injury, bodily impairment, and conscious pain and suffering.

FACTUAL BACKGROUND

Thyroid Eye Disease

26. TED is an autoimmune disease that can occur in people with both overactive or underactive thyroid (hyperthyroidism and hypothyroidism respectively), although it is most commonly associated with hyperthyroidism.

27. TED is characterized by progressive inflammation in the tissue behind and around the eyes. The signs and symptoms of TED can vary greatly from one person to another. Symptoms range from mild to severe and include redness, irritation, and discomfort of the eyes and eyelids. Dry eyes and pain when moving the eyes may also occur. Eyelid retraction is also common, which is when the upper eyelid is positioned too high and/or the lower eyelid too low thus exposing the eye.

28. The most noticeable symptom of TED can be exophthalmos or proptosis, which means the eyes bulge or protrude outward from the eye socket. Additional symptoms and signs can include blurred vision, double vision ("diplopia"), misalignment of the eye ("strabismus"), chronic bloody eyes, inflammation in the white area of the eyes, watery eyes due to excessive formation of tears, swelling near the upper and lower eyelids, intolerance of bright lights, and difficulty moving the eyeballs.

29. TED is divided into two stages: the "active phase," which involves a progressive worsening of symptoms and visible inflammation, followed by an "inactive phase" characterized by no further deterioration in the patient's condition. The active phase typically lasts for six months to two years.

30. TED most commonly occurs as part of Graves' disease, which is an autoimmune disease that affects the thyroid, skin, and eyes. In individuals with Graves' disease, treatment for TED includes reversing hyperthyroidism.

31. Some individuals with mild TED may be treated with supportive measures such as dark sunglasses to treat sensitivity to light, ointments, artificial tears, and/or prisms that are attached to glasses. Other therapies, such as corticosteroids, have been used to reduce inflammation and swelling in individuals with moderate-to-severe disease.

32. Some individuals with moderate-to-severe TED may eventually require surgical intervention, such as orbital decompression, motility, and lid surgery. Generally, it is recommended to avoid surgery until after the active phase of the disease has ended.

33. According to the 2008 Consensus Statement of the European Group on Graves' Orbitopathy (EUGOGO) on Management of Graves' Orbitopathy, TED is often mild and self-limiting, and probably declining in frequency, with only 3-5% of cases posing a threat to eyesight.

34. Upon information and belief, Horizon was aware of these facts at all times, but nonetheless promoted Tepezza's use for anyone diagnosed with TED and for early treatment of the disease.

35. Despite vision impairment being exceedingly rare – impacting a mere 3-5% of TED patients – Horizon's marketing materials for Tepezza suggest that vision impairment is common amongst those diagnosed with TED.

36. Horizon continues to maintain that "TED is a serious, progressive and *vision threatening* rare autoimmune condition" that can "often" lead to "permanent and vision-impairing consequences." Horizon Therapeutics Form 10-K, p. 6 (filed March 1, 2023) (emphasis added) (available at SEC Filings | Horizon Therapeutics plc) (last accessed August 18, 2023).

Development, Testing, And Approval Of Tepezza To Treat Thyroid Eye Disease

37. Tepezza (teprotumumab) is a biologic drug manufactured and distributed by Defendant.

38. On approximately July 6, 2019, Defendant submitted a Biologics License Application (BLA) for teprotumumab-trbw (BLA: 761143) to the Food and Drug Administration (FDA).

39. In January 2020 the FDA granted marketing approval for Tepezza, making it the first approved drug indicated to treat TED.

40. Tepezza is an insulin-like growth factor-1 receptor (IGF-1R) inhibitor. Tepezza inhibits (or blocks) the activity of the protein insulin-like growth factor-1 (IGF-1), which is believed to play a significant role in the development of TED.

41. Upon information and belief, Horizon knew when developing Tepezza that it was an IGF-1R inhibitor.

42. Prior to Defendant's development of Tepezza for the treatment of TED, it was well known in the medical literature that IGF-1 plays a central role in hearing and low levels of IGF-1 has been shown to correlate with human syndromes associated with hearing loss. *See e.g.*, Murillo-Custa, S et al., *The role of insulin-like growth factor-I in the pathophysiology of hearing*. Front. Mol. Neurosci. 2011; 4–11; Varela-Nieto I, et al., *IGF-1 deficiency and hearing loss: molecular clues and clinical implications.* Pediatr. Endocrinol. Rev. 2013 Jul;10(4):460-72; Varela-Nieto I, et al., *Trophic effects of insulin-like growth factor-I* (IGF-I) *in the inner ear*. Hear Res. 2004 Oct;196(1-2):19–25; Cediel R, et al., *Sensorineural hearing loss in insulin-like growth factor 1-null mice: a new model of human deafness.* Eur J. Neurosci. 2006 Jan;23(2):587–90.

43. Despite such knowledge that IGF-1 plays a role in hearing and that Tepezza binds to IGF-1R, prior to seeking FDA approval, Defendant took no action to study the potential effects that Tepezza may have on hearing.

44. Post approval, inhibition of IGF-1R as a mechanism for teprotumumab-induced ototoxicity has been reported in the medical literature. See e.g., Winn B.J., et al., *Teprotumumab: Interpreting the clinical trials in the context of thyroid eye disease pathogenesis and current therapies.* Ophthalmology 2021 Nov; 128(11):1627–1651 (e-pub April 27, 2021); Teo H.M., et al., *Efficacy and safety of teprotumumab in thyroid eye disease.* Ther. Clin. Risk. Manag. 2021; 17: 1219–1230; Chern, A., et al., *Teprotumumab and hearing loss: hearing the warnings*, Orbit, 2021, Vol. 40, No. 4, 355-356 (e-pub Feb. 23, 2021); Chern A, et al., *Thyroid eye disease, teprotumumab, and hearing loss: an evolving role for otolaryngologists*. Otolaryngol. Head Neck Surg. 2021 Dec; 165(6): 757–758; Girnita L, et al., *It takes two to tango: IGF-1 and TSH receptors in thyroid eye disease*. J. Clin. Endocrinol. Metab. 2022 Aug 8; 107(Suppl_1): S1–S12.

45. Upon information and belief, prior to receiving BLA approval, Defendant knew that teprotumumab (now known as Tepezza), was linked to hearing loss in several clinical trials.

46. Before being studied for the treatment of TED, teprotumumab was initially studied for the treatment of various solid tumors. Upon information and belief, Defendant knew that in 6 of the 9 clinical trials where teprotumumab was studied for the treatment of various solid tumors patients reported hearing loss. See, e.g., A Study of the Effect of R1507 in Combination With Tarceva (Erlotinib) on Progression-Free Survival in Patients With Stage IIIb/IV Non-Small Cell Lung Cancer (NSCLC) Having Received Tarceva Monotherapy (NCT00773383) (available at https://clinicaltrials.gov/study/NCT00773383?tab=results#adverse-events) (last accessed Feb. 27, 2024); A Study of R1507 in Participants with Recurrent or Refractory Sarcoma (NCT00642941) (available at https://clinicaltrials.gov/study/NCT00642941?tab=results#adverse-events) (last accessed Feb. 27, 2024); A Study of R1507 in Combination with Letrozole in Postmenopausal Women With Advanced Breast Cancer (NCT00796107) (available at https://clinicaltrials.gov/study/NCT00796107?tab=results#adverse-events) (last accessed Feb. 27, 2024).[1]

47. In 2016, Horizon conducted a Phase 1 clinical study regarding Tepezza. *See* Phase 1, Open-Label Safety and Pharmacodynamic Study of RV001, an Insulin-Like Growth Factor-1 Receptor (IGF-1R) Antagonist, Administered by Intravenous (IV) Infusion in Patients With Diabetic Macular Edema (DME) (NCT02103283). According to ClinicalTrials.gov, the study began in October of 2014 and concluded in August of 2016. On information and belief, the

[1] Plaintiff's complaint cites to only three of the six clinical trials where hearing loss was reported, as only these three studies contain publicly available adverse event data. However, it is clear from the FDA December 19, 2019 Advisory Committee hearing that Defendant was aware of the reported events of hearing loss in all six of these clinical trials.

researchers were evaluating the safety profile of the drug per FDA regulations and guidance. Horizon did not post the results of the study on ClinicalTrials.gov. On information and belief, these unposted and unpublished results evidence increased hearing loss and tinnitus.

48. From 2019–2020, Horizon conducted a Phase 3 study on an expanded access protocol for Tepezza. *See* Phase 3b, Multicenter, Open-label, Single-Arm Expanded Access Protocol of TEPROTUMUMAB (HZN-001) (NCT04040894) (available at https://clinicaltrials.gov/study/NCT04040894) (last accessed Feb. 27, 2024). Horizon did not post the results of the study on ClinicalTrials.gov. On information and belief, these unposted and unpublished results evidence increased hearing loss and tinnitus.

49. Despite such knowledge, prior to seeking FDA approval, Defendant took no action to study the potential effects that Tepezza may have on hearing.

50. Upon information and belief, prior to seeking FDA approval, Defendant did not take any action to test the efficacy and/or safety of a reduced dosage and reduced number of infusions, despite knowing that the elimination half-life of teprotumumab is 20 days.[2]

51. Prior to seeking FDA approval, Defendant failed to conduct testing to determine the mechanism of action of the drug, as is evident from the Tepezza label: "Teprotumumab-trbw's mechanism of action in patients with Thyroid Eye Disease has not been fully characterized. Teprotumumab-trbw binds to IGF-1R and blocks its activation in signaling. . . No formal pharmacodynamic studies have been conducted with teprotumumab-trbw."

52. Prior to approval, Defendant conducted two randomized, double-masked, placebo-controlled clinical studies (Study 1 [NCT:01868997] and Study 2 [NCT: 03298867]) consisting of

[2] The Tepezza label recommends an intravenous infusion of 10 mg/kg for the initial dose followed by an intravenous infusion of 20 mg/kg every three weeks for 7 additional infusions.

169 patients with Thyroid Eye Disease (83 received TEPEZZA (42 in Study 1 and 41 in Study 2) and 86 received placebo).[3]

53. In Study 1, the last follow-up visit was only 3 months after the study completed. In Study 2, the last follow-up visit was the last week of treatment – i.e., week 24.

54. Therefore, Defendant brought Tepezza to the market after less than 100 patients enrolled in the clinical trials received the drug and only following up with those patients for 3 months after discontinuation of the drug.

55. Based on Defendant's conduct, actions, and lack of testing prior to approval of Tepezza, the Warnings and Precautions section of the original label only warned of "Infusion Reactions," "Exacerbation of Preexisting Inflammatory Bowel Disease," and "Hyperglycemia."

56. Based on Defendant's conduct, actions, and lack of testing prior to approval of Tepezza, the only reference in the original label regarding hearing impairment is a listing in the "Adverse Reactions" section. The label provides a table of Adverse Reactions occurring in 5% or more of patients treated with Tepezza in the two clinical trials: "muscle spasm, nausea, alopecia, diarrhea, fatigue, hyperglycemia, hearing impairment, dry skin, dysgeusia, and headache." "Hearing impairment" was noted to have occurred in 8 Tepezza users (10%) and 0 in the placebo group. "Hearing impairment" was noted to include "deafness, eustachian tube dysfunction, hyperacusis, and autophony."

[3] The original Tepezza label states there were 84 patients included in the clinical trials who received Tepezza. However, according to the published literature, there were 42 patients in Study 1 and 41 patients in Study 2 (83 total) who received Tepezza. Horizon represented in the label that 84 patients in the clinical trials received Tepezza as there was one patient in the placebo group (Study 1) who received a Tepezza dose in error at week 15.

57. Based on Defendant's conduct, actions, and lack of testing prior to approval of Tepezza, the original label did not include a warning that Tepezza may cause severe hearing impairments, which may be permanent.

58. Based on Defendant's conduct, actions, and lack of testing prior to approval of Tepezza, the original label did not recommend or suggest that patients undergo audiologic testing before, during, and after infusions.

The Dangers Of Tepezza – Post-Marketing

59. Almost immediately after the FDA granted marketing approval for Tepezza, patients and doctors began reporting serious and permanent complications related to ear and hearing problems in patients taking Tepezza.

60. According to the FDA Adverse Event Reporting System (FAERS), in 2020, the year of approval, the FDA received multiple reports related to ear issues and hearing issues following the use of Tepezza: 15 reports of deafness, 14 reports of hypoacusis, 22 reports of tinnitus, 2 reports of eustachian tube disorder, and 3 reports of ear discomfort.

61. According to the FAERS, in 2021 the FDA received multiple reports related to ear issues and hearing issues following the use of Tepezza: 40 reports of deafness, 51 reports of hypoacusis, 26 reports of tinnitus, 3 reports of eustachian tube disorder, 1 report of autophony, and 7 reports of ear discomfort.

62. According to the FAERS, in 2022 the FDA received multiple reports related to ear issues and hearing issues after the use of Tepezza: 26 reports of deafness, 53 reports of hypoacusis, 47 reports of tinnitus, 3 reports of eustachian tube disorder, 3 reports of autophony, and 30 reports of ear discomfort.

63. According to the FAERS, as of August 1, 2023, the FDA received multiple reports related to ear issues and hearing issues after the use of Tepezza: 26 reports of deafness, 27 reports of hypoacusis, 23 reports of tinnitus, 1 report of autophony, and 8 reports of ear discomfort.

64. Defendant issued a press release, on February 15, 2022, announcing its results from an internal post-marketing safety analysis of hearing events associated with Tepezza for the treatment of TED.

65. In contrast to the 83 patients in the clinical trials who received Tepezza, thousands of patients were included in the 19-month analysis (January 2020 – August 2021). Defendant reported that approximately 10% of all cases in the safety database included a hearing-related event. The most frequently reported hearing event was hypoacusis (reduction in hearing), followed by tinnitus (ringing in the ears).

66. Defendant characterized the events as "mild or moderate in severity" and failed to provide any information on whether the hearing related events were permanent or continued after discontinuation of Tepezza.

67. Defendant's post-marketing safety analysis findings were also presented at the 48th Annual Meeting of the North American Neuro-Ophthalmology Society (NANOS 2022), Feb. 12-17, in Austin, Texas. Post-marketing Surveillance of Hearing-related Adverse Events in Patients With TED Treated With Teprotumumab | Eccles Health Sciences Library | J. Willard Marriott Digital Library (utah.edu) (last accessed September 9, 2023). The authors concluded that "[p]roviders should counsel patients on potential hearing AEs."

68. Consistent with the FAERS data, numerous peer reviewed publications established that severe hearing loss and/or hearing issues can occur following Tepezza use, and that such hearing

loss may continue even after discontinuation of Tepezza. Several publications suggested that audiologic hearing tests should be conducted before, during, and after Tepezza use.

69. In July of 2020, Liou and Yoon published a reanalysis of Horizon's clinical trials (TED01RV and HZNP-TEP-301). Regarding HZNP-TEP-301 ("OPTIC"), the authors stated: "Notably, 12% of those receiving teprotumumab experienced hearing impairment which was not reported in TED01RV." Victor D. Liou & Michael K. Yoon, *Advances in steroid sparing medical management of active thyroid eye disease*, Seminars in Ophthalmology, 35:4, 216-223 (July 20, 2020). The authors further noted concerns with Tepezza's safety profile, specifically stating that in the OPTIC study, "adverse events were not graded on a scale" so it was "difficult to know the severity of these adverse outcomes."

70. In an article published on February 23, 2021, the authors reported on hearing loss observed in the Tepezza clinical trials and noted "it is reasonable to consider IGF-1R inhibition as a risk factor for hearing changes due to the strong relationship between IGF-1 and otologic health." Chern, A., et al., *Teprotumumab and hearing loss: hearing the warnings*, Orbit, 2021, Vol. 40, No. 4, 355-356 (e-pub Feb. 23, 2021). The authors suggested that "clinicians prescribing teprotumumab should consider monitoring patients in conjunction with an audiologist and otolaryngologist."

71. In April 2021, a pooled analysis from the clinical trials was funded and published by Horizon. Kahaly G.J., et al., *Teprotumumab for patients with active thyroid eye disease: a pooled data analysis, subgroup analyses, and off-treatment follow-up results from two randomised, double-masked, placebo-controlled, multicentre trials*. Lancet Diabetes Endocrinol 2021; 9: 360–72 (e-pub April 15, 2021). The article notes that Horizon funded the study and played a pivotal role in constructing the analysis plan, study design, data collection, data analysis, data

interpretation, and writing of the publication. The paper reported on the hearing events noted in the two clinical trials. While Horizon did not originally report the clinical study hearing adverse events as continuing after cessation of Tepezza, this reanalysis notes that for one patient tinnitus continued at the time of the last post-study follow up and for the second patient continuation of hearing impairment could not be ruled out as the patient was lost to follow-up.

72. In May 2021, Dr. Andrea Kossler published an article on her research conducted to "explore the incidence of hearing loss symptoms and sensorineural hearing loss in patients treated with teprotumumab." Kossler, A., et al. *Hearing Loss and Teprotumumab*, J. Endocrine Soc., Vol. 5, Issue Suppl._1, April-May 2021, p. A839. Of the 28 patients included in the analysis, 13 patients (46%) complained of hearing symptoms (compared to the 10% of patients reported by Horizon in the clinical trials). The most common symptoms were autophony or an ear plugging sensation and hearing loss or muffled hearing. Hearing symptoms developed after a mean of 3.6 infusions. Furthermore, the two patients with documented sensorineural hearing loss did not have improvement in their hearing even after discontinuing Tepezza. The authors noted that "[p]roviders should consider performing a baseline audiogram with [patulous eustachian tube] PET testing and performing audiograms with PET testing for patients that develop hearing symptoms during or after therapy. Hearing loss is a concerning adverse event and its mechanism and reversibility should be further studied." Horizon was aware of this research in March 2021, as Dr. Kossler presented her research at the Endocrine Society's annual meeting in 2021, and Horizon was a sponsor of the annual meeting. *See* Increased Risk of Hearing Impairment with New TED Treatment - Endocrine News; Thank You to Our ENDO 2021 Sponsors | Endocrine Society (last accessed September 11, 2023).

73. In August 2021, Highland, J., et al., published an article titled *Ototoxicity and Teprotumumab* reporting a case of a 61-year-old female with "one of the first descriptive cases of ototoxicity resulting in irreversible sensorineural hearing loss in the setting of treatment with teprotumumab." The authors suggested that audiologic evaluations should be recommended to patients on teprotumumab. Highland et al., *Ototoxicity and Teprotumumab*. Ann. Otol. Rhinol. Laryngol. 2022 Aug; 131 (8): 910 – 913) (e-pub August 27, 2021).

74. In September 2021, Yu C.Y., et al. reported a case series of two cases of subjective and objective hearing function changes associated with teprotumumab treatment for thyroid eye disease, including hearing loss and tinnitus. The authors noted that the potential for a risk of long-term irreversible hearing loss may exist. Yu C.Y., et al., *Audiology findings in patients with teprotumumab associated otologic symptoms*. Am. J. Ophthalmol. Case Rep. 24 (2021) 101202.

75. In October 2021, Douglas, R.S., et al., published a follow-up open-label extension clinical trial report of Horizon's OPTIC-X study. *Teprotumumab efficacy, safety, and durability in longer-duration thyroid eye disease and re-treatment*: *OPTIC-X* Study. Ophthalmology 2022; Vol., 129, Issue 4: 438–449. The authors include three Horizon employees: Saba Sile, Megan Francis-Sedlak, and Robert J. Holt. The authors reported 6 of 51 patients (11.8%) experienced hearing impairment, three of which whose symptoms (tinnitus, autophony, and hypoacusis) continued at their last visit.

76. Chern A., et al. published an article in December 2021, stating, "clinicians who prescribe teprotumumab should strongly consider monitoring patients' hearing with an audiologist and otolaryngologist." Chern et al., *Thyroid eye disease, teprotumumab, and hearing loss: an evolving role for otolaryngologists.* Otolaryngol. Head Neck Surg. 2021 Dec; 165(6):757-758.

77. In January 2022, an additional case series of four patients with Tepezza-associated hearing loss was reported. Four of the 28 patients (16%), including a 77 year old woman, a 68 year old woman, a 34 year old woman, and a 48 year old woman, had hearing loss documented by formal audiologic testing. Three of the four patients had continued hearing loss documented months after discontinuation of Tepezza. The authors concluded:

> Teprotumumab may cause a spectrum of potentially irreversible hearing loss ranging from mild to severe, likely resulting from the inhibition of the insulin-like growth factor-1 and the insulin-like growth factor-1 receptor pathway. Due to the novelty of teprotumumab and the lack of a comprehensive understanding of its effect on hearing, the authors endorse prospective investigations of hearing loss in the setting of teprotumumab treatment. Until the results of such studies are available, the authors think it prudent to adopt a surveillance protocol to include an audiogram and tympanometry before, during and after infusion, and when prompted by new symptoms of hearing dysfunction.

Belinsky I., et al., *Teprotumumab and Hearing Loss: Case Series and Proposal for Audiologic Monitoring,* Ophthalmic Plast. Reconstr. Surg. 38(1): 73 – 78, January / February 2022.

78. In February 2022, another case report described a 77-year-old woman who suffered bilateral sensorineural hearing loss after Tepezza use. Ding A.S., et al., *Sensorineural Hearing Loss After Teprotumumab Therapy of Thyroid Eye Disease*: *A Case Report*. Otol. Neurotol., 2022 Feb. 1; 43(2): e148-e152. The authors noted that while hearing loss was noted as a side effect in clinical trials, no formal audiometric investigations of these patients had been reported, and the manufacturer offered no formal guidelines for audiometric monitoring. The authors concluded that, because guidelines exist for other known ototoxic medications, patients undergoing treatment with Tepezza should receive similar audiometric monitoring.

79. In February 2022, Sears C.M., et al. reported on a prospective observational case series. Sears C.M., et al., *Hearing dysfunction after treatment with teprotumumab for thyroid eye disease*. Am. J. Ophthalmol. 2022; 240:1-13. In this series, 27 patients were analyzed (24 females, 3 males,

average 56.3 years old). Twenty-two patients (81.5%) developed new subjective otologic symptoms after a mean of 3.8 infusions. The most prevalent otologic symptoms included ear plugging, fullness, and pressure (n = 13); muffled hearing, hearing loss, and diminished word recognition (n = 11); tinnitus and ear popping (n = 10); and autophony (n = 7). Also, three of the five patients with teprotumumab-related sensorineural hearing loss (based on baseline and post-treatment audiometry) had persistent hearing loss at last follow-up. The authors concluded that clinicians need screening, monitoring, and prevention guidelines for teprotumumab-related hearing loss.

80. In March 2022, the publication of an Expert Consensus on the use of teprotumumab was released. Douglas R.S., et al., *Expert consensus on the use of teprotumumab for the management of thyroid eye disease using a modified-Delphi approach*. J Neuro-Ophthalmol. 2022; 42:334-339. The authors reported the results of three rounds of surveys taken between October 2020 and February 2021. Nine of the fifteen authors reported being consultants, speakers, or owners of Horizon. The consensus recommendations included: (1) a medical history including history of hearing loss *must* be completed before initiation of treatment (emphasis in original) because conditions can worsen during treatment; (2) baseline audiogram and patulous eustachian tube testing *may be* conducted before the initiation of treatment with teprotumumab to ensure patients undergo minimal adverse events (emphasis in original); (3) hearing-impairment adverse effects *should be* discussed with patients before initiating treatment (emphasis in original).

81. In April 2022, Chow A., & Silkiss R.Z., published a case report of a woman in her 50s who developed tinnitus after the third dose of Tepezza, followed by frank hearing loss after the fifth dose. Repeat audiogram six weeks after Tepezza was discontinued showed no improvement in the hearing loss. The authors concluded "[g]iven potentially irreversible sensorineural hearing

loss, we recommend close monitoring with regular audiometric testing before, during and after teprotumumab therapy and propose potential treatment to reverse its effects in the ear." Chow A., & Silkiss, R.Z., *Teprotumumab-associated chronic hearing loss screening and proposed treatment.* BMJ Case Rep. 2022; 15:e248335.

82. In April 2022, an additional case report of a 57-year-old woman with tinnitus and hearing loss following Tepezza use was published by Najjar, W., & Yu, J. The woman, whose audiologic testing pre-Tepezza demonstrated normal hearing, reported bilateral tinnitus after the second infusion and bilateral hearing loss by the fifth infusion. Audiologic testing after discontinuation revealed no improvement. The authors recommended a new prospective clinical trial be performed with comprehensive pretreatment audiologic testing and ongoing audiologic monitoring. Najjar W., & Yu, J., *Audiologic Demonstration of Ototoxicity from Teprotumumab Treatment in Patient with Thyroid Eye Disease*. OTO Open. 2022, Vol. 6(2) 1-2.

83. In a meta-analysis published on April 11, 2022, the authors reviewed the safety of Tepezza. Bartalena L., *Teprotumumab for Graves' orbitopathy and ototoxicity: moving problems from eyes to ears?* J. Endocrinol. Invest. (2022) 45:1455-57. Of the 190 patients included from five different literature articles, 29 patients (15.2%) were reported to have experienced hearing impairment, which resolved in 16 cases (8.4%), but was persistent in 13 (6.8%). The authors concluded that hearing loss represents an important and frequent (>10%) adverse event of teprotumumab, not necessarily resolving after drug withdrawal.

84. In addition to the published studies listed above, from 2021–23, Horizon conducted a Phase 4 clinical study on the efficacy, safety, and tolerability of Tepezza in patients with inactive TED. *See* A Study Evaluating TEPEZZA Treatment in Patients with Chronic (Inactive) Thyroid Eye Disease (NCT04583735) (available at

https://clinicaltrials.gov/study/NCT04583735?intr=TEPEZZA&rank=2) (last accessed Feb. 27, 2024). The results of the study have not yet been released or posted to ClinicalTrials.gov. Plaintiff anticipates that the published results will show increased adverse events of hearing loss and tinnitus.

Regulatory Framework Applicable to Tepezza

85. Defendant, as the manufacturers of Tepezza, is at all times responsible for the safety of its drug and the content of the label.

86. Pursuant to federal law, the introduction into interstate commerce of a drug that is adulterated or misbranded is prohibited.[4] 21 U.S.C. § 331.

87. Pursuant to federal law, a drug is deemed to be adulterated if, among other things, it fails to meet established performance standards, or if the methods, facilities, or controls used for its manufacture, processing, packing, or holding are not in conformity with federal requirements. 21 U.S.C. § 351(a).

88. Pursuant to federal law, a drug is deemed to be misbranded if it is dangerous to health when used in the dosage or manner or with the frequency or duration prescribed, recommended, or suggested in the labeling thereof. 21 U.S.C. § 352(j).

89. Pursuant to federal law, a drug is deemed to be misbranded unless its labeling bears adequate directions for use and adequate warnings against use in those pathologic condition or by children where its use may be dangerous to health, or against unsafe dosage or methods or duration of administration or application, in such manner and form as are necessary for the protection of the user. 21 U.S.C. § 352(f).

[4] "Drug" is defined as "articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals," and thus would include Defendant's biologic Tepezza.

90. Pursuant to federal law, a drug is deemed to be misbranded if its labeling is false or misleading in any particular. 21 U.S.C. § 352(a)(1).

91. Pursuant to federal law, if a drug is alleged to be misbranded because the labeling or advertising is misleading, then in determining whether the labeling or advertising is misleading there shall be taken into account (among other things) not only representations made or suggested by statement, word, design, device, or any combination thereof, but also the extent to which the labeling or advertising fails to reveal facts material in the light to such representations or material with respect to consequences which may result from the use of the article to which the labeling or advertising relates under the conditions of use prescribed in the labeling or advertising thereof or under such conditions of use as are customary or usual. 21 U.S.C. § 321(n).

92. Pursuant to FDA regulation, the labeling for human prescription drugs and biological products must be informative and accurate and neither promotional in tone nor false or misleading in any particular. The labeling must also be updated when new information becomes available that causes the labeling to become inaccurate, false, or misleading. 21 CFR § 201.56(a).

93. Pursuant to FDA regulation, the "Contraindications" section of the label for human prescription drugs and biological products must describe any situations in which the drug should not be used because the risk of use clearly outweighs any possible therapeutic benefit. 21 CFR § 201.57(c)(5)

94. Pursuant to FDA Regulation, the "Warnings and Precautions" section of the label for human prescription drugs and biological products must describe clinically significant adverse reactions and potential safety hazards, limitations in use imposed by them, and steps that should be taken if they occur. The labeling must be revised to include a warning about a clinically

significant hazard as soon as there is reasonable evidence of a causal association with a drug; a causal relationship need not have been definitely established. 21 CFR § 201.57(c)(6).

95. Pursuant to FDA Regulation, the "Patient Counseling Information" section of the label for human prescription drugs and biological products must contain information necessary for patients to use the drug safely and effectively. 21 CFR § 201.57(c)(18).

96. The FDA has established procedures for post-approval changes to a biologic's label. The Changes Being Effected ("CBE") supplement allows the manufacturer to update the labeling of a biologic drug product to reflect newly acquired information without waiting for prior approval from the FDA before distribution of such updated label. 21 C.F.R. §601.12(f)(2). The manufacturer may make these changes based on newly acquired information, which can include reevaluation of prior clinical trials, new clinical trials, adverse-event reports, and the peer-reviewed literature.

97. The CBE process allows for biologic drug manufacturers to change a label more quickly than through a supplemental biologics license application ("sBLA") process.

Defendant Failed to Take Timely Action to Warn of the Dangers of Tepezza

98. At all relevant times, Defendant had a duty to craft an adequate label with respect to Tepezza.

99. At all relevant times, Defendant had a duty to ensure that the warnings in the Tepezza label were adequate as long as the drug remained available for sale in the United States.

100. At all relevant times, Defendant had a responsibility to conduct post-marketing surveillance and continue to study the safety and efficacy of Tepezza, after the Tepezza BLA was approved, for as long as the drug remained available for sale in the United States.

101. At all relevant times, Defendant had a duty to revise the Tepezza label to include a warning regarding the risk of serious and permanent hearing impairments as soon as there was reasonable evidence of a causal association between such injuries and Tepezza use.

102. Based on the knowledge that IGF-1 plays a central role in hearing, the numerous adverse event reports, and the numerous published medical literature articles, Defendant knew or should have known Tepezza use could cause serious hearing loss impairments, which may be permanent.

103. Based on the knowledge that IGF-1 plays a central role in hearing, the numerous adverse event reports, and the numerous published medical literature articles, Defendant knew or should have known that instructions for audiologic testing before, during, and after Tepezza use should have been implemented.

104. Despite such knowledge, Defendant failed to propose an adequate label prior to receiving marketing approval and failed to take timely and appropriate action to change the label for Tepezza after receiving marketing approval.

105. At all relevant times, Defendant failed to adequately warn or instruct patients, the medical community, or prescribers that severe hearing impairments, including permanent hearing loss and/or tinnitus, are associated with Tepezza use.

106. At all relevant times, Defendant failed to adequately warn and instruct patients, the medical community, or prescribers that patients using Tepezza should be closely monitored, and should undergo regular audiologic testing before, during, and after use.

107. Other mediations affecting hearing have included instructions and warnings for users and prescribers. For example, the chemotherapeutic drug cisplatin is likewise associated with ototoxicity. In the labeling for cisplatin, the manufacturer provides the following warning:

> Cisplatin for injection can cause ototoxicity, which is cumulative and may be severe. Consider audiometric and vestibular function monitoring. Ototoxicity is manifested by tinnitus, hearing loss in the high frequency range (4,000 to 8,000 Hz) and/or decreased ability to hear normal conversational tones. Ototoxicity can occur during or after treatment and can be unilateral or bilateral. Deafness after the initial dose of cisplatin for injection has been reported. Vestibular toxicity has also been reported. Ototoxic effects can be more severe and detrimental in pediatric patients, particularly in patients less than 5 years of age. The prevalence of hearing loss in pediatric patients is estimated to be 40-60%. Additional risk factors for ototoxicity include simultaneous cranial irradiation, treatment with other ototoxic drugs and renal impairment. Consider audiometric and vestibular testing in all pediatric patients receiving cisplatin [see Use in Specific Populations (8.4)]. Genetic factors (e.g. variants in the thiopurine S-methyltransferase [TPMT] gene) may also contribute to the cisplatin-induced ototoxicity; although this association has not been consistent across populations and study designs.

108. The American Speech-Language-Hearing Association 2020 guidelines also suggest that baseline audiological monitoring should occur when using ototoxic medications. Specifically, the guidelines state**:**

> When possible, the baseline record should include (1) an audiologic hearing test focused on your ability to hear very high-pitched sounds; (2) word recognition tests; and (3) other tests. This information can help you and your doctor make any important decisions to stop or change the medication therapy before your hearing is affected.

109. At all relevant times, Defendant also failed to alert patients, the medical community, or prescribers that the risks of hearing related injuries increased with higher doses or longer duration use.

110. Before and during Plaintiff's treatment, the peer-reviewed literature, together with mounting adverse event reports, and Horizon's own clinical trial data were sufficient for Defendant to immediately and unilaterally (*i.e.,* without FDA approval) change Tepezza's label through a CBE to warn physicians and consumers of the risk of irreversible hearing loss and damage.

111. Despite this, Defendant did not take any action to update the Tepezza label until January 20, 2023.

112. On January 20, 2023, Defendant, rather than implementing a label change through the Changes Being Effect mechanism, submitted a supplemental biologics license application (sBLA) to change the Tepezza label to warn of severe hearing impairment and to instruct physicians to assess patients' hearing.

113. While a label change through the CBE process would have taken immediate effect, Horizon's submission of a request for a label change through the sBLA process delayed the process of providing important warnings and instructions to patients and physicians for the use of Tepezza.

114. After Defendant submitted its sBLA, published medical literature continued to confirm what had long been known – that Tepezza causes significant and permanent hearing damage.

115. For example, in January 2023, Kay-Rivest, et al reported "a high incidence of otologic-associated symptoms associated with teprotumumab symptoms" and that "[t]he most common subjective symptom reported was a hearing decline" among patients receiving teprotumumab therapy. Kay-Rivest E, Belinsky I, Kozlova A, Byrd E, McMenomey SO, Jethanamest D. *Prospective Assessment of Otologic Adverse Events due to Teprotumumab: Preliminary Results*. Otolaryngol Head Neck Surg. 2023 May;168(5):1164-1169. Doi: 10.1002/ohn.174. Epub 2023 Jan 19. PMID: 36939482. Moreover, of the quarter of the cohort reporting hearing decline, two chose to discontinue therapy due to hearing decline.

116. In April 2023, a case report authored in part by a former Horizon consultant (Andrea Kossler) noted the high incidence of hearing dysfunction symptoms among patients on teprotumumab at the authors' institution, and stressed that "baseline audiograms are crucial" and that "patient education of this potential side effect prior to starting treatment" is "paramount." Lu

TJ, Amarikwa L, Winn BJ, Inserra M, Dosiou C, Kossler AL. *Oral Corticosteroids for Teprotumumab-Related Hearing Loss: A Case Report. Case Rep Ophthalmol*. 2023 Apr 4;14(1):134-139. Doi: 10.1159/000529422. PMID: 37034380; PMCID: PMC10074260.

117. In May 2023, a meta-analysis of placebo-controlled teprotumumab trials indicated that it was associated with a higher risk of any otologic adverse event compared with placebo. The article further highlighted the need for long-term monitoring and audiologic screening. Bertagnoli LE, Seist R, Batts S, Stankovic KM. *Potential Ototoxicity of Insulin-like Growth Factor 1 Receptor Signaling Inhibitors: An In Silico Drug Repurposing Study of the Regenerating Cochlear Neuron Transcriptome.* J Clin Med. 2023 May 16;12(10):3485. Doi: 10.3390/jcm12103485. PMID: 37240591; PMCID: PMC10218904.

118. On July 17, 2023, the FDA issued a letter to Defendant approving the sBLA for the Tepezza label change regarding the risk of permanent hearing damage.

119. On information and belief, Defendant's decision to seek approval for a revised warning regarding hearing impairment in January 2023 was based in part on its reanalysis of the data from its Expanded Access trial (Study 401 (EAP); HZNP-TEP-401), which, according to ClinicalTrials.gov, was last updated on March 16, 2020. This means that Horizon had the data on which the January 2023 sBLA, and eventual July 2023 label change, was based *no later than March of 2020*. Yet it waited years to warn consumers and physicians about the true risks of Tepezza. No results were posted on ClinicalTrials.gov for the Phase 3 EAP study. *See* Expanded Access Protocol of Teprotumumab (HZN-001) for Patients With Active Thyroid Eye Disease (EAP), (NCT04040894) (available at https://clinicaltrials.gov/study/NCT04040894?intr=teprotumamab&rank=3) (last accessed Feb. 27, 2024).

120. The Warnings and Precautions section of the Tepezza label now states:

> TEPEZZA may cause severe hearing impairment including hearing loss, which in some cases may be permanent. Assess patient's hearing before, during, and after treatments with TEPEZZA and consider the benefit-risk of treatment with patients.

121. The Patient Counseling Information section of the Tepezza label now states:

> Advise patients that TEPEZZA may cause severe hearing impairment including hearing loss, which in some cases may be permanent. Instruct patients to contact their healthcare provider if they experience any signs or symptoms of hearing impairment or any changes in hearing.

122. In a recent SEC filing, Defendant acknowledged its awareness of the true hearing-related consequences of Tepezza. *See* Horizon Therapeutics Form 10-K, p. 75 (filed March 1, 2023) (available at SEC Filings | Horizon Therapeutics plc) (last accessed August 18, 2023) ("[A] recent analysis of safety data as part of our ongoing pharmacovigilance program indicated a signal of hearing impairment events of greater severity, in limited cases, then those observed in the TEPEZZA pivotal clinical trials.")

Rather Than Warn Of The Dangers Of Tepezza, Horizon Implemented An Aggressive Marketing Campaign To Encourage Its Use.

123. As noted above, less than 5% of all persons with TED suffer *any* form of vision impairment. In this sense, Tepezza was, and is, a drug in search of a disease given that more than 95% of all users will experience *no benefit* related to vision impairment.

124. As a drug in search of a disease, Horizon launched an aggressive marketing campaign to fuel sales of its blockbuster drug. For example, according to Horizon's 2021 Annual report,

> Our comprehensive post-launch commercial strategy for TEPEZZA aims to enable more TED patients to benefit from TEPEZZA. We are doing this by: (i) facilitating continued TEPEZZA uptake in the treatment of TED through continued promotion of TEPEZZA to treating physicians; (ii) continuing to develop the TED market by increasing physician awareness of the disease severity and the urgency to diagnose and treat it, as well as the benefits of treatment with TEPEZZA; (iii) driving accelerated disease identification and time to treatment through our digital

> broadcast marketing campaigns; (iv) enhancing the patient journey with our high-touch, patient-centric model as well as support for the patient and site-of-care referral processes; and (v) pursuing more timely access to TEPEZZA for TED patients.

125. Similarly, Horizon's 2021 Annual Report reiterates:

> It bears reporting: 2021 was a record-breaking year for Horizon. Full-year 2021 net sales were $3.23 billion, representing year-over-year growth of 47 percent, and our full-year 2021 adjusted EBITDA [earnings before interest, taxes, depreciation, and amortization] was $1.28 billion, representing year-over-year growth of 33 precent. Driving much of this growth was TEPEZZA®, which boasted one of the most successful rare disease medicine launches in history, and had full-year 2021 net sales of 1.66 billion representing year-over-year growth of 103 percent.

126. Additionally, in the wake of the global COVID pandemic, Horizon launched an aggressive campaign to encourage physicians to prescribe Tepezza. On May 14, 2021, PM360, a leading life sciences marketing trade publication, reported the following:

> Within three months of its launch, 95% of target physicians were aware of the brand and more than 65% said they were highly likely to prescribe TEPEZZA. Due to COVID, the team also had to find ways to reach HCPs without an in-person sales force. The team developed a booth (TEPEZZAexperience.com) for virtual medial congresses that allows visitors to take a quiz about TED, tour the TEPEZZA data, hear real patient stories, and connect with a Horizon representative. In just the month of November, the booth received over 2,800 visits and over 550 unique HCP engagements.
>
> As Tepezza is an infusion medication and the core prescriber base did not have infusion experience, a new field team was developed to build a site of care network. The marketing team developed customized materials for the infusion center and administrative staff to support rapid uptake at launch.

See, ELITE 2021 Marketing Team TEPEZZA Marketing Team | PM360 (pm360online.com) (last accessed September 1, 2023).

127. On information and belief, this aggressive marketing campaign drove, in part, the astonishing Tepezza sales that followed.

128. But that was not all. At the same time, Horizon launched a massive direct-to-consumer campaign whose sole purpose was to build brand awareness and promote sales. Specifically, PM360 reported:

> On the patient front, the team launched a DTC campaign that spotlighted the extremely challenging symptoms of TED that cannot be ignored. Within a month, TEPEZZA achieved 82% aided awareness among patients, an increase of 68% prior to the campaign. Combined communication efforts also drove 157K unique visitors to TreatTED.com, a page created for TEPEZZA.com website.

Id.

129. Upon information and belief, the direct-to-consumer campaign included the development of websites masquerading as support groups for persons suffering from TED, the promotion of the drug on Graves' disease websites, the creation of "more than 1,000 infusion centers," and a massive unbranded and branded televised direct-to-consumer advertisement campaign. *See generally* https://www.fiercepharma.com/marketing/horizon-uses-eye-catching-animation-for-ted-ads (last accessed September 1, 2023.)

130. At the same time Horizon was pushing its marketing of Tepezza to prescribing physicians and consumers, the EUGOGO was drafting new practice guidelines for the medical management of Grave' orbitopathy. The guidelines, which included first and second-line treatments for disease based on severity, stated that Tepezza should be considered only as a second-line treatment for moderate-to-severe and active Graves' orbitopathy because, "although teprotumumab has become the first drug approved by the US Food and Drug Administration for the treatment of adult GO [Graves' Orbitopathy], its incorporation into routine clinical practice is currently limited by the lack of comprehensive long-term efficacy and safety data, absence of head-to-head comparison with i.v. glucocorticoids, restricted geographical availability, reimbursement (outside the US), and cost."

131. Horizon continued its physician and direct-to-consumer marketing efforts throughout 2022. According to its 2022 Annual Report, with respect to Tepezza, Horizon "expanded [its] commercial team, continued to invest in [its] direct-to-consumer marketing activities, refined [its] marketing and physician education strategies, and conducted extensive market analysis to identify further opportunities to accelerate growth." Horizon identified its growth opportunities to involve "increasing adoption by ocular specialists and driving an urgency among ophthalmologists and endocrinologists to diagnose and refer thyroid eye disease, or TED, patients."

132. As a direct result of these efforts, annual sales of Tepezza soared. According to Horizon's 2022 Annual Report, its net sales "increased $402.6 million, or 12%, to $3,629.0 million during the year ended December 31, 2022. . . The increase during the year ended December 31, 2022 was primarily due to an increase in TEPEZZA net sales of $304.4 million."

133. In short, Horizon's collective marketing efforts worked, resulting in nearly $6 billion in sales in less than three years (for a drug supposedly designed to treat a rare disease).

PLAINTIFF'S USE OF TEPEZZA AND RESULTING INJURIES

134. Plaintiff was prescribed and received Tepezza infusions starting in approximately late July 2021, for a total of eight infusions.

135. Near the end of his infusion treatments, Plaintiff began suffering hearing impairment, including tinnitus at times, and hearing loss. Plaintiff's hearing impairment and hearing loss continued even after his discontinuation of Tepezza.

136. On or about February 1, 2022, Plaintiff underwent audiology testing which revealed a mild sloping to moderately-severe mixed hearing loss in the right ear and a mild sloping to severe sensorineural hearing loss in the left ear.

137. As a result of his use of Tepezza and the hearing loss caused by Tepezza, Plaintiff was fitted with and now wears bilateral hearing aids.

138. Recent audiology testing reveals that Plaintiff's hearing impairment has not improved and, in fact, has worsened. Testing on his last visit reveals the hearing in his right ear has worsened when compared to his prior testing.

139. Prior to receiving Tepezza, Plaintiff did not suffer from any hearing impairments or hearing loss and was not required to seek medical care or treatment for hearing loss.

140. In addition to suffering from hearing impairments and hearing loss after the use of Tepezza, Plaintiff also suffered several other side effects including hair loss, extreme fatigue, delirium, and paranoia.

141. During the relevant time periods, neither Plaintiff nor his physicians were given any warning and had no knowledge of the increased risk of severe hearing impairments, which may be permanent, caused by Tepezza.

142. As a direct and proximate result of Defendant's actions and its defective drug Tepezza, Plaintiff has suffered significant harm, physical injury, bodily impairment, and conscious pain and suffering.

143. As a direct and proximate result of Defendant's actions and its defective drug Tepezza, Plaintiff has suffered significant mental anguish and emotional distress and will continue to suffer physical limitations, damages, harm, and mental and emotional distress in the future.

144. As a direct and proximate result of Defendant's actions and its defective drug Tepezza, Plaintiff has incurred medical expenses and other economic harm, and will continue to incur such expenses and other economic harm in the future.

FIRST CAUSE OF ACTION
STRICT LIABILITY FAILURE TO WARN

145. Plaintiff incorporates by reference, as if fully set forth herein, each and every allegation set forth in the preceding paragraphs and further alleges as follows:

146. Defendant designed, tested, manufactured, labeled, marketed, distributed, and sold Tepezza which was prescribed to and used by Plaintiff.

147. The Tepezza designed, tested, manufactured, labeled, marketed, distributed, and sold by Defendant was defective due to inadequate warnings and/or instructions because at the time it left the control of Defendant and was supplied to Plaintiff, Defendant knew or should have known that its product was unreasonably dangerous due to its increased risk of hearing impairments which were more frequent and more severe than originally disclosed in the label.

148. The Tepezza designed, tested, manufactured, labeled, marketed, distributed, and sold by Defendant was defective due to inadequate warnings and/or instructions because at the time it left the control of Defendant and was supplied to Plaintiff, Defendant knew or should have known that its product was unreasonably dangerous due to its increased risk of severe hearing impairments which could be prolonged and/or permanent.

149. Despite the fact that Defendant knew or should have known about the increased risk of severe hearing impairments, which could be prolonged or permanent, Defendant failed to provide adequate warnings of such risks and failed to provide instructions to perform audiologic testing before, during, and after use of Tepezza.

150. The Tepezza designed, tested, manufactured, labeled, marketed, distributed, and sold by Defendant was defective due to inadequate warnings and/or instructions after marketing approval because at the time it left the control of Defendant and was supplied to Plaintiff, Defendant knew or should have known that its product was unreasonably dangerous due to its

increased risk of hearing impairments more frequent and more severe than originally disclosed in the label.

151. The Tepezza designed, tested, manufactured, labeled, marketed, distributed, and sold by Defendant was defective due to inadequate warnings or instructions after marketing approval because at the time it left the control of Defendant and was supplied to Plaintiff, Defendant knew or should have known based on the published literature and adverse event reports that its product was unreasonably dangerous due to its increased risk of severe hearing impairments which could be prolonged and/or permanent.

152. Despite the fact that Defendant knew or should have known after marketing approval, based on the published literature and adverse event reports, that its product was unreasonably dangerous due to its increased risk of severe hearing impairments which could be prolonged and/or permanent, Defendant failed to provide adequate warnings of such risks and failed to provide instructions to perform audiologic testing before, during, and after use of Tepezza.

153. Based on Defendant's representations to Plaintiff and/or Plaintiff's physicians that its drug was safe for the treatment of thyroid eye disease, Plaintiff was prescribed and used Tepezza.

154. Had Plaintiff and/or his physicians been aware of the serious safety risks of Tepezza, Plaintiff would not have taken Tepezza.

155. As a direct and proximate result of Tepezza's inadequate warnings and instructions, Plaintiff suffered damages, including but not limited to, personal injury, bodily harm, emotional distress, pain and suffering, economic loss and will continue to suffer such harm, damages, and economic loss in the future.

156. Defendant's actions and omissions as alleged in this Complaint show that Defendant acted with actual malice or a wanton and willful disregard for human life, so as to warrant the imposition of punitive damages.

SECOND CAUSE OF ACTION
STRICT LIABILITY DEFECTIVE DESIGN

157. Plaintiff incorporates by reference, as if fully set forth herein, each and every allegation set forth in the preceding paragraphs and further alleges as follows:

158. Defendant designed, tested, manufactured, labeled, marketed, distributed, and sold Tepezza which was prescribed to and used by Plaintiff.

159. Defendant's Tepezza was defective in design when it left Defendant' control in that the foreseeable risks of the product exceeded the benefits associated with its design or formulation and it was more dangerous than an ordinary consumer would expect when used in its intended or reasonably foreseeable manner.

160. Defendant's Tepezza was defective in design in that Defendant knew or should have known that IGF-1 plays a role in hearing and that Tepezza binds to IGF-1R, yet Defendant, both pre- and post-approval, failed to study, assess, test, or evaluate the potential effects that Tepezza may have on hearing.

161. Defendant's Tepezza was defective in design in that Defendant knew or should have known that patients in the earlier studies of teprotumumab for the treatment of various solid tumors suffered hearing loss, yet Defendant, both pre- and post-approval, failed to study, assess, test, or evaluate the potential effects that Tepezza may have on hearing.

162. Defendant's Tepezza was defective in design in that Defendant knew or should have known that the elimination half-life of Tepezza is 20 days, yet Defendant, both pre- and post-

approval, failed to study, assess, test, or evaluate the efficacy or safety of a reduced dosage and/or reduced number of infusions.

163. Defendant's Tepezza was defective in design in that Defendant knew or should have known that Tepezza may cause severe and permanent hearing impairments, yet Defendant, both pre- and post-approval, failed to study, assess, test, or evaluate the mechanism of action of the drug.

164. Defendant's Tepezza was defective in design in that the long-term efficacy for the treatment of thyroid eye disease and the reduction of proptosis does not outweigh the increased risk of severe hearing impairments, which may be prolonged or permanent.

165. The foreseeable risks of Defendant's Tepezza include severe hearing impairments, which could be prolonged and/or permanent.

166. At the time Defendant designed, tested, manufactured, labeled, marketed, distributed, and sold Tepezza to Plaintiff, safer alternative treatment options were available to treat thyroid eye disease, including but not limited to, management of the underlying hyperthyroidism, cessation of smoking (if applicable), eye drops, gels, or ointments, prisms for glasses, corticosteroids, radioiodine therapy, and surgical intervention.

167. As a result of the defective design of Tepezza, the Tepezza infusions Plaintiff received were unreasonably dangerous.

168. As a direct and proximate result of Tepezza's defective design, Plaintiff suffered damages, including but not limited to, personal injury, bodily harm, emotional distress, pain and suffering, economic loss and will continue to suffer such harm, damages, and economic loss in the future.

169. Defendant's actions and omissions as alleged in this Complaint show that Defendant acted with actual malice or a wanton and willful disregard for human life, so as to warrant the imposition of punitive damages.

THIRD CAUSE OF ACTION
NEGLIGENCE

170. Plaintiff incorporates by reference, as if fully set forth herein, each and every allegation set forth in the preceding paragraphs and further alleges as follows:

171. Defendant designed, tested, manufactured, labeled, marketed, distributed, and sold Tepezza which was prescribed to and used by Plaintiff.

172. Defendant had a duty to exercise reasonable care in the design, testing, manufacture, labeling, marketing, distribution, and selling of Tepezza, including a duty to ensure that Tepezza did not pose a significantly increased risk of bodily harm or adverse events.

173. Defendant failed to exercise reasonable care in the manufacture, design, testing, distribution, marketing, labeling, and selling of Tepezza in that Defendant knew or should have known that Tepezza caused significant bodily harm and was not safe for use by consumers.

174. Defendant failed to exercise reasonable care in the labeling of Tepezza in that it failed to provide adequate warnings or instructions that hearing impairments were more frequent and more severe than originally described in the label.

175. Defendant failed to exercise reasonable care in the labeling of Tepezza in that it failed to provide adequate warnings or instructions that there is an increased risk of severe hearing impairments which could be prolonged and/or permanent.

176. Defendant failed to exercise reasonable care in the labeling of Tepezza in that it failed to provide adequate warnings or instructions that audiologic testing should be performed before, during, and after use of Tepezza.

177. Defendant failed to exercise reasonable care in the labeling of Tepezza after marketing approval in that it failed to provide adequate warnings or instructions that hearing impairments were more frequent and more severe than originally described in the label.

178. Defendant failed to exercise reasonable care in the labeling of Tepezza after marketing approval in that it failed to provide adequate warnings or instructions that there is an increased risk of severe hearing impairments which could be prolonged and/or permanent.

179. Defendant failed to exercise reasonable care in the labeling of Tepezza after marketing approval in that it failed to provide adequate warnings or instructions that audiologic testing should be performed before, during, and after use of Tepezza.

180. Defendant knew or should have known that IFG-1 plays a role in hearing and that Tepezza binds to IGF-1R, yet Defendant, both pre- and post-approval, failed to exercise ordinary care in the design, study, assessment, testing, and evaluating the potential effects that Tepezza may have on hearing.

181. Defendant knew or should have known that patients in the earlier studies of teprotumumab for the treatment of various solid tumors suffered hearing loss, yet Defendant, both pre- and post-approval, failed to exercise ordinary care in the design, study, assessment, testing, and evaluating the potential effects that Tepezza may have on hearing.

182. Defendant knew or should have known that the elimination half-life of Tepezza is 20 days, yet Defendant, both pre- and post-approval, failed to exercise ordinary care in the design, study, assessment, testing, and evaluating the efficacy or safety or a reduced dosage and/or reduced number of infusions.

183. Defendant knew or should have known that Tepezza may cause severe and permanent hearing impairments, yet Defendant, both pre- and post-approval failed to exercise ordinary care in the design, study, assessment, testing, and evaluating of the mechanism of action of the drug.

184. As a direct and proximate result of Defendant's negligence, Plaintiff suffered damages, including but not limited to, personal injury, bodily harm, emotional distress, pain and suffering, economic loss and will continue to suffer such harm, damages, and economic loss in the future.

185. Defendant's actions and omissions as alleged in this Complaint show that Defendant acted with actual malice or a wanton and willful disregard for human life, so as to warrant the imposition of punitive damages.

FOURTH CAUSE OF ACTION
FRAUD / NEGLIGENT MISREPRESENTATION

186. Plaintiff incorporates by reference, as if fully set forth herein, each and every allegation set forth in the preceding paragraphs and further alleges as follows:

187. Defendant designed, tested, manufactured, labeled, marketed, distributed, and sold Tepezza which was prescribed to and used by Plaintiff.

188. Defendant had a duty to provide truthful information about its prescription drug Tepezza to consumers, including Plaintiff, and his physicians, as well as a duty not to deceive them.

189. Defendant is responsible for the accuracy and truthfulness of its product labeling at all times.

190. Defendant had a duty to provide accurate labeling and prescribing information for Tepezza to consumers, including Plaintiff, and his physicians, and a duty to ensure that such information was neither promotional in tone nor misleading in any particular. 21 CFR § 201.56(a).

191. Defendant had a duty to update the labeling and prescribing information for Tepezza to consumers, including Plaintiff, and his physicians when new information became available that caused the labeling to be inaccurate, false, or misleading. 21 CFR § 201.56(a).

192. Defendant made representations to Plaintiff and/or his physicians regarding the character and/or quality of Tepezza for guidance in their decision to select Tepezza for the treatment of Plaintiff's thyroid eye disease.

193. Specifically, Defendant represented on its "Tepezza – Official Patient Website" (www.tepezza.com), as well as many of the documents available on its website (i.e., "Welcome Brochure," "Education Brochure," "Thyroid Eye Disease FAQs," etc.,) that:

a. TED is a serious, vision-threatening disease common among all those diagnosed with TED;

b. Tepezza was safe and effective as it was indicated for the treatment of TED;

c. Tepezza was safe and effective for anyone with TED, regardless of the severity or stage of the disease.

d. Most side effects, including "hearing problems," were "mild or moderate" and "went away during or after treatment."

194. At the time such representations were made, Defendant had actual knowledge that the representations were untrue or acted with such utter disregard and recklessness as to the truth of such information.

195. At the time such representations were made, Defendant failed to exercise reasonable care and/or acted negligently regarding the truthfulness of such representations.

196. At the time such representations were made, Defendant intended for consumers, such as Plaintiff, and/or his physicians to rely on such representations in order to increase revenue from the sale of Tepezza.

197. Plaintiff and/or his physicians justifiably relied to their detriment upon the representations made by Defendant concerning Tepezza for the treatment of TED.

198. As a direct and proximate result of Defendant's negligent and/or intentional misrepresentations, Plaintiff suffered damages, including but not limited to, personal injury, bodily harm, emotional distress, pain and suffering, economic loss and will continue to suffer such harm, damages, and economic loss in the future.

199. Defendant's actions and omissions as alleged in this Complaint show that Defendant acted with actual malice or a wanton and willful disregard for human life, so as to warrant the imposition of punitive damages.

FIFTH CAUSE OF ACTION
BREACH OF EXPRESS WARRANTY

200. Plaintiff incorporates by reference, as if fully set forth herein, each and every allegation set forth in the preceding paragraphs and further alleges as follows:

201. Defendant designed, tested, manufactured, labeled, marketed, distributed, and sold Tepezza which was prescribed to and used by Plaintiff.

202. Defendant made express warranties to Plaintiff and/or his physicians regarding the character and/or quality of Tepezza for guidance in their decision to select Tepezza for the treatment of Plaintiff's thyroid eye disease.

203. Specifically, on Defendant's "Tepezza – Official Patient Website" (www.tepezza.com), as well as many of the documents available on its website (i.e., "Welcome Brochure," "Education Brochure," "Thyroid Eye Disease FAQs," etc.,) it expressly warranted that:

a. TED is a serious, vision-threatening disease common among all those diagnosed with TED;

b. Tepezza was safe and effective as it was indicated for the treatment of TED;

c. Tepezza was safe and effective for anyone with TED, regardless of the severity or stage of the disease.

d. Most side effects, including "hearing problems," were "mild or moderate" and "went away during or after treatment."

204. The Tepezza designed, tested, manufactured, distributed, and sold by Defendant did not conform to such representations and warranties as Tepezza posed an increased risk of serious physical injury to consumers, including Plaintiff.

205. As a direct and proximate result of Defendant's breach of express warranty, Plaintiff suffered damages, including but not limited to, personal injury, bodily harm, emotional distress, pain and suffering, economic loss and will continue to suffer such harm, damages, and economic loss in the future.

206. Defendant's actions and omissions as alleged in this Complaint show that Defendant acted with actual malice or a wanton and willful disregard for human life, so as to warrant the imposition of punitive damages.

SIXTH CAUSE OF ACTION
BREACH OF IMPLIED WARRANTY

207. Plaintiff incorporates by reference, as if fully set forth herein, each and every allegation set forth in the preceding paragraphs and further alleges as follows:

208. Defendant designed, tested, manufactured, labeled, marketed, distributed, and sold Tepezza which was prescribed to and used by Plaintiff.

209. At the time Defendant designed, tested, manufactured, labeled, marketed, distributed, and sold Tepezza, Defendant impliedly warranted that Tepezza was safe and fit for consumers to use to treat their TED.

210. The Tepezza designed, tested, manufactured, labeled, marketed, distributed, and sold by Defendant did not conform to this implied representation as Tepezza was not safe for use by consumers as it posed an increased risk of serious physical injury to consumers, including Plaintiff.

211. On the basis of Defendant's implied representations, Plaintiff purchased and used Tepezza for the treatment of his TED.

212. As a direct and proximate result of Defendant's breach of implied warranty, Plaintiff suffered damages, including but not limited to, personal injury, bodily harm, emotional distress, pain and suffering, economic loss and will continue to suffer such harm, damages, and economic loss in the future.

213. Defendant's actions and omissions as alleged in this Complaint show that Defendant acted with actual malice or a wanton and willful disregard for human life, so as to warrant the imposition of punitive damages.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff demands judgment against Defendant individually, jointly, and severally, as follows:

1. Compensatory damages in excess of the jurisdictional amount for past and future damages, including but not limited to compensation for injury, pain, suffering, mental anguish, emotional distress, loss of enjoyment of life, and other non-economic damages in an amount to be determined at trial of this action.

2. Economic damages for past and future damages, including but not limited to, medical expenses, out-of-pocket expenses, and other economic damages in an amount to be determined at a trial of this action.

3. Attorneys' fees, expenses, and costs in this action.

4. Punitive damages;

5. Pre-judgment and post-judgment interest;

6. Such further relief as this Court deems necessary, just, and proper.

DEMAND FOR JURY TRIAL

Plaintiff demands a trial by jury.

Respectfully submitted,

/s/ Seth A. Katz

Seth A. Katz (IL 4713888)
BURG SIMPSON
ELDREDGE HERSH & JARDINE, P.C.
40 Inverness Dr. East
Englewood, CO 80112
P: 303.792.5595
F: 303.708.0527
skatz@burgsimpson.com

Trent B. Miracle (IL 6281491)
FLINT COOPER, LLC
222 East Park Street, Suite 500
P.O. Box 189
Edwardsville, IL 62025
P: 618-288-4777
F: 618-288-2864
tmiracle@flintcooper.com

Melanie S. Bailey (pro hac vice)
Nolan M. Hoenigess (pro hac vice)
BURG SIMPSON
ELDREDGE HERSH & JARDINE, P.C.

201 East Fifth Street, Suite 1340
Cincinnati, OH 45202
P: 513.852.5600
F: 513.852.5611
mbailey@burgsimpson.con
nhoenigess@burgsimpson.com

CERTIFICATE OF SERVICE

I hereby certify that on the 28th day of February, 2024, I electronically filed the foregoing with the Clerk of Court using the CM/ECF system which will send notification of such filing to all parties via operation of the Court's electronic filing system.

/s/ *Seth A. Katz*
Seth A. Katz